



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

DEC 21 2009

REPLY TO THE ATTENTION OF:

E-19J

Richard A. Hargis, Jr.
Document Manager
U.S. Department of Energy
National Energy and Technology Laboratory
P.O. Box 10940
Pittsburgh, PA 15236-0940

**RE: Final Environmental Impact Statement, Mesaba Energy Project,
EIS # 20090393**

Dear Mr. Hargis:

The U.S. Environmental Protection Agency (EPA) has reviewed the Final Environmental Impact Statement (FEIS) for the Mesaba Energy Project. We offer our comments under the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act.

The Mesaba Energy Project is a two-phase 1,212-megawatt facility that has a projected operating period of 20 years, provided the 1-year trial is successful. Phase I, proposed to be co-funded by the Department of Energy (DOE), is a 606-MW plant; Phase II is an identical, co-located and privately funded 606-MW plant. The project is proposed by Excelsior Energy under DOE's Clean Coal Power Initiative (CCPI) competitive solicitation. DOE selected the project to demonstrate the commercial viability of the integrated gasification combined cycle (IGCC) process; however, DOE defers to the applicants regarding siting of the plant.

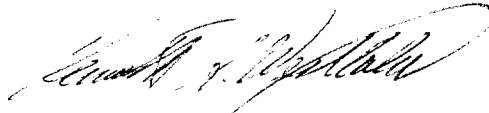
Excelsior's preferred alternative is a 1,200-acre site near Taconite, MN (Itasca County); the alternative evaluated is an 810-acre site near Hoyt Lakes, MN (St. Louis County). Connected actions included road construction, road modifications, and right-of-way considerations for railroad spurs, power lines, and gas pipelines. Both locations are near Federal Class I air quality areas (Boundary Waters Canoe Area and Voyageurs National Park). The alternatives would permanently impact between 31 and 37 acres of wetlands due to filling and permanently affect 57 to 61 acres of wetlands due to vegetation type conversion.

At the time of the DEIS, EPA expressed environmental objections based on our comments on the alternatives analysis, the impacts to wetlands, and our questions regarding whether the project could meet the Clean Water Act Section 404 requirements for selecting the least environmentally damaging preferred alternative (LEDPA). We also made comments regarding air emissions, specifically permitting issues and

greenhouse gas emissions, as well as recreational uses of Canestro mine pit and water quality. The information presented in the FEIS adequately addressed many of our comments. However, we still have concerns regarding wetland avoidance and mitigation, air permitting, and greenhouse gases. These areas are discussed in our attached comments.

Thank you for the opportunity to review and provide comments on the FEIS. If you have any questions or would like to discuss our concerns and recommendations, please contact me at (312) 886-2910 or Sherry Kamke of my staff at either kamke.sherry@epa.gov or (312) 353-5794.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Kenneth A. Westlake", written over a horizontal line.

Kenneth A. Westlake
NEPA Implementation Section
Office of Enforcement and Compliance Assurance

Enclosures

**EPA Region 5 Comments for the
Final Environmental Impact Statement (FEIS) for the Mesaba Energy Project**

Wetland Avoidance and Mitigation

Avoidance

Information provided in the FEIS addressed comments regarding purpose and need and the scope of alternatives analysis. A substantial amount of information was included in the FEIS to justify why the alternative analysis focused on sites within the Taconite Tax Relief Area. Based on this information, we accept that for this proposal, the practicable alternatives reside within the Taconite Tax Relief Area.

After the release of the DEIS, EPA discussed the lack of wetland impact minimization efforts with DOE during several conference calls. At the time of the DEIS, EPA believed that the level of information included in the wetlands analysis was insufficient to support a least environmentally damaging preferred alternative (LEDPA) decision. Working with the Corps and DOE, Excelsior appears to have more thoroughly examined alternative layouts and routes for its facility and support structures. There are noticeable reductions in both temporary and permanent wetland impacts as a result of these alternatives, particularly at the West Range site.

Information included in the FEIS has been greatly expanded for the West Range site. Even though the amount of wetlands permanently impacted from the project are higher for the west site than the east site, there are other considerations to weigh, including temporary impacts to wetlands and the quality of wetlands affected, as well as other environmental issues, such as proximity of the project locations to Class I areas. We would like to see comparable avoidance measures conducted for the east site. That additional work would facilitate a more informed LEDPA determination by the Corps during the review of a future permit application for wetlands dredge and fill under Section 404 of the Clean Water Act.

Wetland Mitigation

At the time of the DEIS, we recommended that the FEIS include specific information on how the applicant intends to provide mitigation for the wetland impacts incurred by this project, including information on potential mitigation sites, commitments to replace lost wetlands with a comparable type, expected mitigation ratios, and long-term mitigation monitoring.

The FEIS includes a wetland mitigation strategy for searching and screening potential mitigation sites in accordance with the watershed approach. Excelsior conducted a preliminary analysis of the mitigation options available to the applicant by using this strategy. Although they did not identify any specific compensation project sites, the strategy offers a good framework for future analysis. The identification of viable compensation projects will be an essential component of any future Section 404 permit application.

Overall, Excelsior has done a good job addressing the issue of wetland mitigation conceptually, but needs additional work implementing actions associated with it. Successful implementation will be difficult because of the reasons that we presented in the DEIS comment letter:

1. Wetlands already comprise a relatively high percentage of total land cover in the project area, meaning that few areas are available for mitigation;
2. Existing opportunities available for creating wetlands (reclaiming old mine pits and tailings basins) represent far less than ideal mitigation, especially for the variety and types of wetlands being impacted (which include forested wetlands and bogs); and
3. The demand for wetland mitigation in the watershed is high, due to other projects under development (e.g., mining projects) that will also incur significant wetland impacts.

Air Emissions

Air Emissions (Permitting)

The Minnesota Pollution Control Agency (MPCA), which has authority for direct implementation of the Clean Air Act in Minnesota, has had discussions with the applicant regarding Best Available Control Technology (BACT) for this project. Much of the work that started before the Draft EIS on permitting issues, including BACT considerations, continues today. Although there has been progress made on air modeling, the BACT issues that were brought up at the time of the DEIS remain unresolved at this point. EPA has also been involved in discussions regarding permitting matters, including questions of BACT determinations. The BACT analysis and permitting concerns are challenging, but we expect they will be resolved through the ongoing permitting process.

Air Emissions (Greenhouse Gas)

A substantial amount of information was included in the FEIS to explain the greenhouse gas (GHG) emissions from the Mesaba Energy project and the role of GHG in climate change. We note the information presented in Section 2.2.3.1, where the FEIS states that the fully operating (Phases I and II) Mesaba Generating Station would emit approximately 10.6 million tons of CO₂ per year (burning sub-bituminous coal). In Section 5.2.8.5, the FEIS states that the annual emissions of greenhouse gases from the Mesaba Generating Station would be approximately 11.2 million tons per year of CO₂ equivalents (CO₂e). The FEIS puts these numbers, either 10.6 or 11.2 million tons of CO₂e, in perspective when it states that Mesaba running at full capacity without carbon capture and sequestration (CCS) would constitute the second largest point source of CO₂ emissions in Minnesota. Statewide greenhouse gas emissions in Minnesota were approximately 152 million tons CO₂e in 2006. Therefore, without CCS or a similar GHG reduction plan being implemented, the additional 10.6 to 11.2 million tons of CO₂ from the plant would equate to an approximately 7% CO₂e increase above the 2006 level.

We appreciate that Section 5.2.8 of the FEIS includes a discussion of the effect of greenhouse gas emissions on climate and the resulting environmental impacts from climate change. Most importantly, we note that the FEIS in section 5.2.8.5 discusses climate change, greenhouse gases, and the Mesaba Project. The second paragraph of Section 5.2.8.5 states the following:

As noted earlier, emissions of greenhouse gases from the proposed power plant by themselves would not have a direct impact on the environment in the proposed plant's vicinity; neither would these emissions, by themselves, cause appreciable global warming that would lead to climate changes. However, these emissions would increase the atmosphere's concentration of greenhouse gases, and, in combination with past and future emissions from all other sources, contribute incrementally the global warming that produces the adverse effects of climate change described above.

We agree with the statement made in the FEIS that GHG emissions from the Mesaba Project would increase the atmosphere's concentration of greenhouse gases, and, in combination with past and future emissions from all other sources, add incrementally to the adverse effects of climate change described in the FEIS. We also agree that it is difficult to determine the specific climate impacts of such an increase. However, as noted above, the Mesaba project would be a noticeable increase in the State of Minnesota's GHG emission inventory.

The CO₂ emissions are an important consideration for this project. Both EPA and the State of Minnesota initiated efforts to address GHGs since this EIS was begun. On December 7, 2009, the EPA Administrator signed the Endangerment and Cause or Contribute Findings under Section 202(a) of the Clean Air Act, 74 FR 66496 (Dec. 15, 2009), in which she found that the six key well-mixed greenhouse gases threaten public health and welfare. Additionally, the Mesaba Project would impact Minnesota's ability to reach their statewide GHG emission goals as established by the Minnesota Legislature in 2007. These goals include a 15% statewide GHG emission reduction from 2005 levels by 2015, a 30% reduction by 2025, and an 80% reduction by 2050.

We note that the FEIS has described how the facility will be designed for possible retrofitting of CO₂ capture technology. Further, the FEIS includes a plan for carbon capture and sequestration (CCS) that outlines options for potential mitigation through CCS. EPA is in favor of proactive measures to address GHG emissions, including the development of CCS plans and other GHG reduction plans. Because the regulatory environment for GHGs is uncertain and dynamic at this time, the applicant should consult with EPA and the State of Minnesota during and after the air permitting process. We encourage Excelsior to continue to refine and implement plans to mitigate GHG emissions associated with this project. Therefore, we recommend that the DOE Record of Decision (ROD) for this project address steps that Excelsior will take to address GHGs. At a minimum, Excelsior should specify how it will comply with any regulatory requirements that are in place at the time of the ROD.